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**Political Change**

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## FOREWORD

As part of the Transportation Outlooks project, seven papers were commissioned, dealing with well-defined themes of major significance to the future development of Ontario. Under the main heading Future Scenarios for Ontario, the titles of the papers are as follows:

- 1/ The Environment
- 2/ Resources Sector
- 3/ Production
- 4/ Multinational Corporations
- 5/ Social Values and Behaviour
- 6/ Political Change
- 7/ Preliminary Assessment of New Technologies

The papers were commissioned from experts, several of them of national or international renown, in various fields. It is expected that their work, and additional material related to it, will be used in the development of a number of alternative scenarios of Ontario's prospects. The main objectives are to stimulate thinking about the future and to elicit feedback from MTC planners and other users of such information in order to guide further studies of the future, that are both relevant and timely.

It should be noted that these papers, which were completed in June 1982, are primarily the speculations or opinions of experts, not statements of fact. It should also be clear that a different choice of experts would have produced another set of opinions. Part of the process of anticipating future change is the painstaking analysis of detail, including quantitative information, and the expert assessment of emerging and disappearing trends and other qualitative information. Another part is the careful integration and synthesis of all these different types of information. Futures research requires the involvement and participation of all users to improve on the application of futures information to current decision-making.

Most of the reports delineate events as they would develop if Ontario, Canada, and the world were to follow two broadly different futures: low growth and high growth, as described in the following.

### Low Growth

This future assumes an economic environment characterized by continued slow economic growth and attempts to reinforce the existing industrial structures globally and locally. The gap between North and South continues to widen, and there is little change in conditions in the Third World. Also, relations between East and West continue to be strained. At the same time, attempts to liberalize trade and capital movements as well as reform the international monetary system will be piecemeal and sporadic.

### High Growth

The main features of this environment are more rapid economic growth and attempts to harness the new technologies (e.g., micro-electronics, biotechnology, oceanography, etc.) in building a new industrial structure globally and locally. The assumptions include greater co-operation between East and West, and North and South, with rapid improvements in the conditions of the Third World. At the same time, there will be strong and relatively successful attempts to liberalize trade and capital movements as well as reform the international monetary system.

Two of the reports are based on different pre-conditions. In the case of Preliminary Assessment of New Technologies, the two scenarios were simply omitted, and an assessment was done of the potential of developing a high-technology future for Ontario. The paper Political Change deals with two main scenarios and a third scenario which considers an overlay on each of the preceding two. One pre-condition -- in effect, an amalgamation of two alternatives -- was given for this paper and is as follows.

Assume a competitive world environment (politically and economically) with slow rates of economic growth for most nations, a high priority for more economically successful countries to re-industrialize using high technology, and serious international competition for resources and markets. There will be winners and losers nationally, as well as by and within industrial sectors.

## ABSTRACT

This paper outlines possible paths for strategic evolution of major Canadian institutions, to the year 2000. It focusses on strategic relationships, rather than on description of individual institutions. Three scenarios are presented:

- 1/ evolutionary nation-building,
- 2/ extreme decentralization, and
- 3/ an overlay, on each of the preceding, of North American integration.

Public and semi-public institutions are emphasized, rather than underlying primary institutions such as the family. By emphasizing the major institutions that have an impact on public life and strategic decision-making, some of the causalities and linkages underlying these macro-developmental scenarios may be clarified.

The scenarios deal with the federal situation and future of Canada, with reference to impacts of each scenario on Ontario and analysis of the best alternative for the province.

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## 1/ INTRODUCTION

This paper outlines possible paths for strategic evolution of major Canadian institutions, to the year 2000. It focusses on strategic relationships, rather than on description of individual institutions. Central to the presentation are three scenarios:

- 1/ evolutionary nation-building,
- 2/ extreme decentralization, and
- 3/ an overlay, on each of the preceding, of North American integration.

This kind of division entails greater emphasis on public and semi-public institutions than on underlying primary institutions such as the family. By emphasizing the major institutions that have an impact on public life and strategic decision-making, the author hopes to clarify some of the causalities and linkages underlying these macro-developmental scenarios.

### 1.1/ Ontario's Stake in Institutional Evolution

Historically, Ontario has been a major stakeholder in two interacting systems:

- the balance of political institutions in Canadian confederation, and
- the maturing transnational industrial economy centering on the Great Lakes area.

In the 1970s, Ontario was confronted by major changes in the external context and environment. These changes occurred virtually simultaneously and increased economic and institutional uncertainty, by rendering vulnerable the political and economic contexts within which Ontario's institutions had developed, and in relation to which the province's institutions and strategies were well attuned.

In the macro-political environment, Confederation, as it was known, came into question: more specifically, a relatively stable bargaining alliance between Ontario and Quebec broke down. Economically, the strengths of the Great Lakes industrial economy were eroded. A nexus of vulnerability emerged, particularly in the three mature industries (automobiles, auto

parts, and iron and steel) that, together, accounted for over 20% of Ontario's industrial value-added, and for almost 30% of production workers in the province's manufacturing sector.

Because it was a large and successful stakeholder in the pre-1970s status quo, the shock to Ontario was proportionately greater as the play of the game changed. Correspondingly, Ontario has a heavy stake in institutional futures that affect the ability to define and maintain support for strategic economic and social policies, and that affect the ability to concert resources and effort to cope with economic and social change. A central question in examining institutional futures stems from the relative significance of de-stabilizing and conflictual dimensions of social and public life vis-a-vis prospects for "re-institutionalization." That is, is it possible to re-establish, or invent, relatively stable, institutional frameworks for institutions and consensus-building, in ways that can positively influence economic and social strategies?

### 1.2/ The Crisis of the Welfare State

Participants in a recent Organization for Economic Co-operation and Development (OECD) symposium (The Welfare State in Crisis, 1981) identified five central themes that can be summarized to help link the economic and institutional dimensions of crisis [1,2].

- 1/ Industrial societies are undergoing major structural changes (both social and economic) which are essentially unplanned, and the underlying element of which is "a crisis of confidence in managing a mixed economy" [1].
- 2/ A major shuffling of resources is occurring. In the 1980s, industrial societies require that more resources be allocated to investment, to undertake a re-profiling of the systems of production. But the consequences of this, in the medium term, would be reduction of the share available for private and public consumption. One concomitant of this is the draining of resources for social programmes, and the perception (by many governments) of a need for a drastic reshaping of the philosophy, scope and instrumentalities of social policy.

- 3/ While the idea of the welfare state was a response to economic crisis and depression, its implementation occurred during a period of high economic growth. Under these conditions, in which the total economic pie was expanding in Western industrial societies, distinctions between primary economic security and concepts of socio-economic redistribution could be blurred. Changing economic conditions force a dichotomization (at the present time) between primary security dependent on economic development, and social economics and distributive equity. Governments, forced to a greater concern for primary security and the economics of investment, find more attractive the notion that primary institutions, such as the family and the local community, should somehow undertake more of the burden on the social side. Ideologically, this has been labelled a transition from the "welfare state" to the "welfare society," but the programmatic requirements for this have been poorly articulated.
- 4/ The shift in resources, and the wedge that is opening between primary security and investment requirements, on the one hand, and social economics and services, on the other, epitomize a period of major social and political conflict over priorities, mechanisms, and underlying socio-economic philosophies. In effect, one type of very general consensus is breaking down, and (in the opinion of the participants in the symposium) some kind of new consensus is required. But the social and political behaviour of a period of extreme crisis flies in the face of the rational desire for consensus -- as Yehezhkiel Dror pointed out, the trend may not be towards consensus at all, but towards what he called "dis-consensus" [2].
- 5/ Administratively, there is a need for manageable priorities, to relate economic growth and re-configuration of industry to social needs and aspirations. But administrative technique, together with the apparent rationalities of decision-making in a period of high growth, is precisely what comes under question in the period of "dis-consensus" and of "a crisis of confidence" in economic management. The breakdown of consensus forces issues and institutions more overtly into the socio-political realm, which is characterized by greater volatility and conflict. Economic crisis becomes institutional crisis.

### 1.3/ Shifts in the Ontario Socio-Political Culture

Ontario, in responding to the more general crisis of the Western industrial economy and welfare state, is affected by two types of shifts:

1/ the shifts in Confederation and the Great Lakes industrial economy,  
and

2/ changes and challenges in its internal socio-political culture.

Historically, the evolution of the socio-political culture has been characterized by three dimensions of stability:

1/ a socio-political system of values and symbols (the "old Ontario" value nexus) emphasizing affinities to the British political heritage;

2/ relative stability of governments (only five major changes of government since 1867, and only four major changes in the period since 1900);  
and

3/ the steady development of processes of administrative governance which were, in part, the reflection of the underlying durabilities in values and in the staying-power of governments.

Historically, the emphasis could be placed on administrative institutions, relying on an established process of intermediation between the socio-political articulation of needs and an administrative process of priority-setting, allocation of resources, and programme implementation. Such a system was well-attuned to a stable society and a growth economy. Also, it was a highly-receptive setting for the introduction of technocratic and centrist decision-making, derived from advanced practices in corporate management.

Each of the historical stabilities underlying the socio-political culture of Ontario can be challenged by looking at recent developments.

- It can be asked whether there is an underlying trend favouring minority government. The evidence for this appears clearer at the national, rather than at the provincial, level: since 1957, six of ten federal elections have produced minority governments. In Ontario, two of the last three elections produced the first minority governments since the 1920s and a very brief episode in the 1940s. While majority governments were returned in Ottawa in 1980 and at Queen's Park in 1981, fragmentation and volatility (characteristics of the Canadian electorate) are among the factors that would favour the thesis that minority governments will be more, rather than less, probable in the 1980s and 1990s.
- The content of political values increasingly moves away from the British loyalist bedrock of the "old Ontario" political culture. The "loyalist" and traditionalist orientation which crystallized in the 19th century provided, until the 1950s, a basic resiliency to more populist and "American" countervales. While the value shift has been detectable since the late 1950s, there is a cultural lag in its institutional reflection, which is likely to be more overt in the 1980s and 1990s. Contributory factors to this shift have been:
  - an increasing divergence between Britain and Canada in the substantive dimension of their relationship (British entry into the European community, and emergence of Canadian nationalism);
  - diminishing British ethnicity in Ontario, from close to 75% in the early 1940s to under 60% at the beginning of the 1970s, with a possible decline to 50% or less by the 2001 census;
  - population shifts away from rural centres to more cosmopolitan metropolitan areas; and
  - intense and multi-dimensional impact of North American values, through media and increasingly interconnected business, social, and technological networks.

The central problem of the value-shift is that while the old socio-political culture is eroded, and an upsurge in Canadian identity appears to be beginning to take its place, there is not yet a clear consensus

around durable socio-political values, symbols, and "civic culture." Under such circumstances, shifting relationships in the balance of distinct sectoral values are likely to be more significant (at least for the 1980s) than cohesive socio-political value frameworks within which interest can be accommodated; differences in priority can be resolved through negotiation and efforts concerted behind major agreed-upon objectives.

- The administrative overlay is vulnerable to the erosion of underlying socio-political stabilities and to attack on the premises and operating style of the "technocratic centrism" which it co-opted from corporate practice. The thesis here is that the two types of vulnerability are interrelated: so long as administration could be perceived as the key to governance, shielded from sharp socio-political conflict, a technocratic approach could be adopted and strengthened as the late-20th-century equivalent of impartiality and objectivity in public service (i.e., there could be a synthesis of quasi-British values and quasi-American methodology). The erosion of stability in the socio-political value system and institutional context opens the way to a sharper challenging of the administrative side of government, and this is reinforced by a number of tendencies in contemporary society.
  - Conflicts of aggregated large-scale administration versus disaggregated community interest groups (centrism versus localism), and of the administrative need to balance interests and priorities versus an increasing tendency to "single issue" socio-political pressures are occurring.
  - There is disaggregation of interests and increased politicization of decision-processes -- as economic sectors, under pressure, conflict for attention and support, there is an undermining of processes of technocratic decision-making and increasing pressure to politicize decisions.
  - A rise of populist and "libertarian" values, issues, and political methodologies cuts across established political structure and ideologies; "mapping" the socio-political context for decisions becomes more difficult.

#### 1.4/ Points of Departure: A Summary

Institutions which have tended to promote stability through social control, arbitration of competing interests, and consensus promotion and socialization to common "core values" have tended to be particularly vulnerable to change. Thus, the larger "established" institutions have tended to be in decline:

- the formal structures of government;
- interest-arbitrating political parties;
- "mainstream" churches; and
- formal educational institutions, which are relied on for value socialization.

Institutions that have been on the ascendancy are those that reflect change, or can rapidly respond to a sense of drift and danger, by appealing to, or representing, particular sub-groups of the population. Examples of the latter would be:

- limited-range interest or pressure groups;
- religious and quasi-religious groups with an activist style, anchored to sharply-defined "fundamentalist" values;
- electronic media, particularly when linked to sharply-defined audience (or user) subsets (e.g., the importance of age-linked subsets in the demography of popular culture); and
- groups that promote cohesiveness through the reification, definition, and intensification of a particular identifying trait of their membership or target group, e.g., some ethno-cultural organizations or various "lib" groups defined on socio-sexual bases, by age cohorts, or by an espousal of a particularistic "ideology of the oppressed."

Net effects of the above may be:

- a tendency, which will probably continue through the 1980s and 1990s, for subsets of society to be ascendant versus efforts to establish more encompassing norms;
- greater conflict among subsets, and a higher visibility for organizations based on particularistic subsets;
- a vacuum (at least temporary) in socio-political integration, perhaps mitigated by new sub-group alliances;
- a more politicized and conflictual environment for policy, and a greater tendency for policy organs to reflect minority government situations, multi-group pressures, and the organized activity of limited-issue political-action organizations competing with political parties; and
- a resurgence of ideologies in the form of competing versions of the future, coupled with media-intensive promotion of "new wave" concepts that blur the distinction among socio-political expression, popular culture, and rapidly-changing fads and fashions.

## 2/ SCENARIO I: REFURBISHING AN INSTITUTIONAL STATUS QUO -- EVOLUTIONARY NATION-BUILDING

### 2.1/ Scenario Descriptor

This scenario describes an effort, now being launched, to build national institutions on the basis of more direct federal institutional involvement in economic development at the provincial and regional levels. Economic mandates in the revised Constitution, coupled with appeals to the social psychology of groups seeking leadership in a period of economic crisis, are used to build support constituencies around regionally-tailored federal programmes and administration. Despite challenges (political and legal), a federally-centred nation-building exercise takes hold in the 1980s. A second round of institutional change, in the late 1980s, effectively co-opts provinces to national strategic decision-making. In the 1990s, a technological overlay on this system leads to "electronic federalism."

### 2.2/ Time Frames

Three time frames are relevant:

#### 1/ Mid 1980s (1982 to 1985/87)

This is the critical period for political success or failure of this approach, i.e., the period of testing of political support, and the determination of whether building "national" federalist institutions is sustainable.

#### 2/ Mid 1980s into 1990s

This is the period of building on the national federalist institutions, minimalist modification (more of a role for provincial Premiers), or collapse (Scenario II, "Extreme Decentralization"). For purposes of this scenario, a second phase of institution-building based on confirmation of the national federalist approach to nation-building is assumed.

### 3/ Early to mid 1990s and Beyond

An underlying momentum on the technological side converges with institution-building. "Electronic federalism" as a major element of institutional functioning, with well-established procedures and systems, emerges by the first decade of the 21st century.

#### 2.3/ Key Features

##### 2.3.1/ The Start-Up Phase (to ca. 1985/87)

Conflicts of approach regarding nation-building have been at the centre of Canadian macro-institutional evolution since the end of the 1960s. Underlying these are the geo-economic diversity of Canada, the reality of regionalized political cultures, and the catalytic phenomenon of Franco-Quebec culture and nationalism. The struggles leading to the revised Constitution of 1982, coupled with economic crisis, provide the impetus to a new, nation-building effort. The refurbishing of the institutional status quo, accompanied by a nation-building ideological rationalization, begins with a federal government centralizing initiative, but need not lead in the direction of confirming a centralized Canadian federalism over the longer run.

The start point is inherent in the revised Constitution and in the need for quick response to economic crisis. While the Constitution does not normally change the allocation of powers between the federal and provincial levels of government, it does provide an altered base for defining economic mandates: Sections 6 and 36 of the Constitution Act of 1982 confirm that Canada is a unified economy and leave quite open the determination of the relative spheres of action as regards commitments to regional development and economic equity. What seems to be implied by the clauses, taken together, is that there is a basis for limiting provincial initiatives (including provincial preference policies) that could create or strengthen non-tariff barriers to economic activity within Canada. Section 36, while specifying commitment of both senior levels of government to regional development, economic equity, and comparable levels of social and public services to all Canadians (irrespective of province of residence), leaves open the question of how this is to be achieved. "Who does what?" could not be addressed without jeopardizing the

constitutional patriation process; instead, there is what amounts to an invitation for everyone to try their luck in the process.

In effect, the economic constitution is to be settled by political action, by testing in the courts, and by further negotiation.

One view is that the federal government is potentially less excluded from direct action regarding in-province economic activities than it might have been under the old British North America Act. This scenario takes, as its point of departure, the premise that this view becomes a significant input to federal government strategy. The federal government, which between 1979 and 1982 began to restructure its cabinet-level decision-making and the array of economic departments, now moves quickly to:

- stake its institutional claims to implement directly a co-ordinated, and locally-tailored, set of economic policies in the "regions" (i.e., provinces);
- initiate economic policy changes, addressed to national economic structure, based on the belief that speed of decision and implementation are necessary and would be supported by the electorate; and
- mobilize supporting clienteles around the major economic policies.

The substantive nature of the policies (likely to fit a "re-industrialization" model) is less important, for purposes of our institutional analysis, than the combination of process characteristics:

- a centering of activity around federal government initiatives;
- an emphasis on speed of implementation; and
- utilization of crisis to justify such activity and to try to build political support constituencies around economic and administrative structures.

The assumption of a crisis that requires pushing the new constitutional openings to their maximum gives priority to speed and cohesiveness of decision and implementation. Politically, normal federal/provincial negotiation is labelled as a drag on these processes. Economic restructuring will be sought in consort with the provinces, if possible, but if necessary, will be pushed in opposition to any province or group of provinces.

The economic institutional policies are accompanied by a pan-Canadian nationalist rhetoric. The watchwords of the campaign are the following.

- Constitutional nationalism refers to the emergence of a nation-state in which loyalty to the constitution provides the bridge that overcomes a multitude of substantive differences in Canada, and among Canadians. As in the United States, the appeal to the constitution as more than a legal document tries to render concrete some basic abstractions about social and political loyalties; in such processes, constitutions become focal points in secular, political "religions."
- Politically, the emphasis is on human rights, at the level of the individual, but human rights are linked to social and economic rights (e.g., the right to pursue a livelihood as an aspect of Section 6's emphasis on mobility and opposition to provincialist economic discrimination). Human rights, as economic and social rights, take precedence over provincial rights, as a matter of purely jurisdictional interest.
- The federal government is pictured as the protector and promoter of "people versus provinces" -- more broadly, there is a semantic shift to promote the notion of the "national" government, reflecting a constitutionally-embodied national will.
- New economic policies, involving a more interventionist and centralized restructuring of economic institutions, are justified via the interlock of strategic and ideological assumptions:
  - the need to modernize Canada through technological change;
  - the need to accomplish this quickly, because of economic crisis;

- the need to centre these changes on national government initiatives, in order to ensure concerted effort and comparability, and equity of costs and benefits among Canadians;
- the need to preserve Canadian control over key economic sectors; and
- the need to establish an underlying substantive and structural basis for promoting constitutionally-enshrined human rights.

By 1984, the national government has implemented a number of sectoral economic programmes, in both the technology industries and resource-based sectors, that reflect a commitment to long-range planned restructuring of the economy, co-ordinated by Ottawa and by high-level federal policy councils established within provinces. A variety of challenges to this institutional revolution are launched; legally, the bulk of the new programmes are upheld by the courts. Politically, there is less reliance on the governing party and its provincial affiliates than on the building of interest-group support around specific programmes. Noted scholars, and various editorialists, express concern about the increased political role of administrative agencies, but surveys of public opinion establish that this is a low-salience issue for the public. A national election with an advisory referendum is conducted in a highly-charged atmosphere; the results are seen as vindicating the centristic and nation-building stance of the federal government. In the wake of the election, a coalition government in Ottawa is established which, as an annex to its first budget, releases its "Canada 2010" plan based on re-industrialization.

### **2.3.2/ Mid-Passage (ca. 1985/87 to 1993/95)**

Following the legal and political testing of the mid 1980s, most provinces accommodate to the increased and more direct federal economic role. The persistent exception to this is Quebec, where survey data indicate a steady rise in provincialist support. For the time being, however, there is a decline in overt efforts to implement a programme of provincial independence. More strategic reliance is placed on the role of the Quebec nationalist bloc elected to the federal Parliament, and on efforts to use

the "notwithstanding" and "opting-out" clauses of the Constitution, to define, in practice, the substance of "special status" for Quebec.

A new phase of constitutional and institutional change is launched toward the end of the 1980s. Negotiations based on Section 40 of the 1982 constitution Act lead to a series of changes in some areas of responsibility for education. The first such change is the assumption, by the federal government, of responsibility for provision of minority language French or English education across the country. The amendment to this effect is supported by all provinces except Quebec. Quebec invokes "opting-out" legislation, but this is overthrown in the Supreme Court, which rules that the specific language of Section 40 does not clearly establish the right of a province to opt out where an otherwise valid amendment, supported by a sufficient numerical and demographic quota of provinces, has provided for a transfer of educational responsibility to the federal government. Subsequently, however, an amendment to the Minority Languages Education Amendment is negotiated and ratified, whereby English-language minority education is constitutionally entrenched in Quebec, to be funded through federal grants, but administered by local school boards and the Quebec Department of Education. At the beginning of the 1990s, a further amendment under Section 40 is negotiated, providing for a national system of post-graduate scientific and technical research and education, financed at the federal level and administered by a national consortium of national, provincial, and economic-sector representatives.

Within Parliament itself, and not requiring formal Constitutional amendment, a series of procedural and structural reforms has taken place in the 1980s and early 1990s.

- After a series of blockages and procedural delays, an all-party committee of the House of Commons investigates and recommends changes in procedures and structure; these are implemented following the mid-1980s federal election.
- The range of issues subject to votes of confidence is more narrowly and explicitly defined. Conventions for allowing greater voting flexibility in areas outside this range arise.

- Shifting cross-party coalitions of MPs emerge, influencing legislation on a variety of social, economic, and technological/environmental issues outside the range of issues where the survival of a government is called into question.

The general trend in Parliament, concomitant with a diminishing role for the political party system, is in the direction of a quasi-Congressional approach; this allows for greater influence and a fuller reflection of the variety of interests, cultures, and groupings that make up Canadian society. House and Senate Committees become more significant in both the review of legislation and the shaping of major programmes, and are supported by more ample professional staff and sophisticated technologies. The older advisory councils, such as the Economic Council of Canada and the Science Council, become arms of Parliament, analogous to the U.S. Congressional Budgetary Office and the Office of Technology Assessment. As "national" institutions, they draw on various regional and sectoral inputs to make inputs to Parliament, thus promoting linkages that help renew the political system. The budget process, opened to fuller pre-discussion and review in the mid 1980s, has been substantially changed by the beginning of the 1990s: in addition to a wider consultative process and an enhanced role for Parliamentary committees, the shift toward a quasi-Congressional parliamentary approach has been accompanied by adoption of multi-year investment budget programmes and a clearer distinction between the investment and operating sides of government expenditure.

Further institutional change during this period provides for enhanced provincial representational decision-making. This is accomplished through:

- change in the composition of the Senate;
- the institutionalization of the high-level conference system, e.g., a constitutional amendment requiring annual First Ministers' Conferences;
- provincial participation in appointments to an expanded Supreme Court; and
- creation of new inter-governmental institutions for transport, communications and health-care development.

Paralleling these is the regionalization of the Bank of Canada and the credit system.

The characteristic of the second phase of the nation-building theme is that a significant modification and compensation have occurred in the development of what was initially a centrist system: while economic functioning has been integrated in a nationalistically-oriented "common-market" economy where the negation of trade barriers has meant the limiting of provincial preference initiatives and industrial policies, and while substantive direction of economic policy has gravitated increasingly to Ottawa, institutional changes have provided for more and more provincial representation (as well as more access for specific socio-economic and interest groupings) in the formulation of policy. The system is neither purely centralistic nor decentralizing at this point -- the term "deconcentrated centralism" (Peter Merkl) may be appropriate for political systems of this sort.

### 2.3.3/ The Emergence of Electronic Federalism (1990s and Beyond)

Phase I and II of this "nation-building" scenario would lay the base for the subsequent absorption and integration of communications and information technologies with the political system. The type of system that has been described as emerging by the first half of the 1990s would provide a major market for large-scale conference communications networks, linking the various outlets of the national government, as well as providing for linkage among levels of government. At the same time, the type of network required would be something more than the kind of dispersed office-/interconnect system beginning to emerge today. The technology could well require another 10 to 15 years of development before it would be adequate to the requirements of a complex system of governance. Some elements of such a system (e.g., large, shared data banks among governments and major socio-economic institutions, and sophisticated systems for allowing data to be manipulated in graphic form) are beginning to emerge at the present time, but this is only the beginning of a major transition in decision-technology. Experimental systems of this sort are only now beginning to emerge in advanced defence applications and, as they are developed and used, may gradually diffuse to the civilian sector. (See Appendix A for a description of "electronic federalism.")

## 2.4/ Year 2000 Situation

- 1/ There is preservation of Canada as a unified nation-state.
- 2/ The post-1867 system of "division of powers" has given way to a "de-concentrated centralism" -- "national" institutions are focussed on the federal government, with processes for provincial input to, and co-ordination with, national decision-making.
- 3/ An economic common market exists -- non-tariff barriers among provinces (e.g., provincial procurement levers for industrial strategy) are curtailed or eliminated; economic strategies are integrated and co-ordinated in the national system.
- 4/ Political parties exist, but are less significant than inputs from, and shifting coalitions among, various special-interest and advocacy groups.
- 5/ The parliamentary system operates on neo-Congressional lines.
  - Committees have greater significance.
  - Budget and economic strategizing develop through consultative processes.
  - There is a narrower range of issues of confidence on which the fate of government depends.
  - Members of Parliament reflect a greater spread of interests -- caucus discipline is important regarding some issues (e.g., issues of confidence), but in general, coalitions emerge in Parliament along issue-specific and regionally-specific lines.
- 6/ The system is conducive to selective re-industrialization policies of economic strategy.
- 7/ Advanced technologies are more closely integrated to decision-making; electronic federalism has not yet given way to a system of electronic plebiscites.

## 2.5/ Ontario Impacts

- 1/ Insofar as the system provides a framework for re-industrialization and the maintenance of a larger Canadian market, Ontario is a gainer from this system.
- 2/ In terms of the symbolism and values of a "provincial" orientation, Ontario is subject to major change -- "provincialism" has been given up in favour of the Ontario interest in "pan-Canadian economic nationalism."
- 3/ In making the adjustment to the system, and in trading off "provincialist" politics for economic gain, Ontario, particularly in Phase II of this scenario, has become a leading actor in pressing for institutional change (e.g., the representative Senate), to evolve an imposed centrism into a more participatory centrism.
- 4/ A major shift is discernible when Ontario actively supports the use of Section 40 of the new Constitution to create a national system of post-graduate science and technology education and research.
- 5/ The emphasis of government within Ontario is increasingly on social services, cultures, and "lifestyle" support, though the impact of this is not clearly seen till the early 1990s, when the economy of the country and the province has substantially recovered from the decade of economic malaise.
- 6/ There is an increased emphasis on regionalism within Ontario. In the 1990s, the Toronto Megalopolis, in practice, is functioning as a quasi-"city-state" in its relationship with both the federal and provincial governments. Some consideration is given to formalizing this arrangement by adopting an Ontario provincial constitution that would provide for a federal system within the province, consisting of the Toronto Megalopolis and four other regions.

7/ Surveys indicate that interest in provincial government and administration has declined significantly relative to the level of interest in national government and in local and municipal politics and administration.

8/ Ontario, by the beginning of the 21st century, has largely completed a transition to post-industrial economic activity on a selective re-industrialization basis (high technologies, plus localized service networks, including institutionalized frameworks to facilitate work and skill-sharing on a barter basis). The work-week norm, in principal occupations (i.e., excluding barter), is 3.5 days per week. Ontario has been a net gainer of population -- by the 2001 census, it has a population of 12.5 million of the total Canadian 30 million. Per capita income (including newly-accounted-for non-monetary equivalencies) is estimated at 108% to 112% of the Canadian average. "Lifestyle" and "security" are two key-word responses to questionnaires regarding reasons for migrating to, or continuing to live in, Ontario.

## 2.6/ Critical Note

Scenario I is extremely optimistic. It presents the most favourable interpretation of implications of institutional potentialities that now exist. Over the 20-year timespan, there are really two scenarios interacting in a thesis/antithesis fashion, providing a basis for synthesis under the "electronic federalism" framework. The thesis is the likelihood of a strong effort to centralize Canadian federalism by combining new constitutional possibilities and the receptivity to leadership which is seen to be concomitant with severe economic crisis. The antithesis would arise out of a willingness to let a more pan-Canadian economic nationalism and a more direct role for federal economic strategies take root, but then to graft onto these a variety of participatory modifications, for both provinces and socio-economic interest groups.

Scenario I can be used to probe for weaknesses in the system; for "real-world" elements that would falsify this scenario.

- The key to this is the need to secure acceptance and momentum for the first phase of the scenario, i.e., to accomplish a great deal by way of centralizing and co-ordinating Canadian economic federalism within a very few years, probably by, or before, the Canadian federal election of the mid-1980s.
- Secondly, it would be necessary to show significant early results from national economic programmes, i.e., while economic crisis may favour leadership initiatives, leadership itself will be judged by "real-world" economic standards and over very short timespans.
- Finally, it is necessary to have reasonably strong socio-political institutions in place to carry such a programme: to have, or to create, strong supporting political parties (or surrogate parties) and to reach accommodation with groups such as organized labour. It is one thing to discern that new, more issue-specific or interest-specific groupings are emerging and that these can be induced to provide a shifting support base for new initiatives. It is another thing to be able to rely on such groups at a point where older institutions are weakening, and new ones have not yet taken their place. Accordingly, a central argument of this scenario is that the political party system and other large-scale institutional frameworks for accommodating and reconciling disparate interests are in the process of breaking down, but that changes in the social culture (e.g., greater self-reliance, or greater identification with social system sub-groups, whether of an ethno-cultural, or generational, or localized, or economic sector type) are, at present, at a point where they erode the base for "doing things the old way," but are some distance away from providing a base for "doing things the new way," whatever that may, in fact, be.

The basis for the centrist "first phase" of the nation-building scenario is, accordingly, very weak. Administrative governance itself cannot be easily converted into the basis for social and political support for new initiatives. The new type of political party, as a format for group development of social and political initiatives with a fairly rapid

cycling through of both participants and programmes, does not yet exist. In a highly-fragmented and volatile system, the expedient of the last decade or so -- to replace political functioning with media-defined emphasis on leadership -- is likely (particularly given the increasing range of attractions on media) to prove less successful in integrating political support with programmatic initiatives. Within the first time phase of the scenario, i.e., by the mid 1980s, volatility of the political system and the production of minority governments will be better established as characteristics of the system. At the national level, the infusion of Quebec Nationalist MPs and (perhaps) a sprinkling of other regional representatives would, in effect, create an environment of permanent bargaining and manoeuvre within which major institutional change would be unlikely, and the success of economic programmes without institutional leverage at the national level, even more unlikely. Under these circumstances, the inherently marginal viability of the Canadian system could become even more severe, and efforts at building national systems using the constitutional framework and the atmosphere of economic crisis could result, not in an evolutionary nation-building scenario, but in precipitating the materialization of other scenarios -- extreme decentralization, or one or another variant of North American integration.

### 3/ SCENARIO II: EXTREME DECENTRALIZATION -- THE BREAKDOWN OF CONFEDERATION AS A WAY-STATION TO NORTH-AMERICANIZATION

#### 3.1/ Scenario Descriptor

Difficulties in managing a severe economic crisis, and backlash against federal efforts to develop a more centralized and economically co-ordinated Canadian federation, interact with socio-political fragmentation in a renewed, and worsened, Canadian crisis of identity and survival. The Constitution of 1982 turns out to be non-enforceable as a basis for national integration and state-building. Extreme minority government stalemate at the national level is manifest by the mid-1980s. Quebec provides the catalyst for the breakup of the status quo and emerges as an independent state by the end of the 1980s. Western discontent, while expressed in regionalized party representation in the federal parliament, does not in itself precipitate Balkanization; the full breakdown of Confederation is arrested by the emergence of an Ontario-Western axis. A truncated Canada survives, but with increasing linkages of regions to the U.S. By the end of the 1990s, it is increasingly likely that "extreme decentralization" will merge into a form of the "North American" scenario (Scenario III).

#### 3.2/ Time Frames

##### 1/ Ca. 1984/85 through 1988/1990

This is the cultural period for the breakdown of the Canadian status quo.

##### 2/ Ca. 1990 to Early 2000s

Quebec gains independence, and Canada becomes truncated (Ontario/West axis; Atlantic provinces already in loose relationship with U.S.).

##### 3/ Mid to Late 1900s Onward

An increasing tendency to integration with the U.S. is visible.  
(See Scenario III.)

### 3.3/ Key Features

#### 3.3.1/ The Precipitating Crisis (Mid-1980s to 1990)

- 1/ The basic assumption is that there is a continued underlying strength of Quebec nationalism, with increased potential for a separatist surge in the event of a severe economic/political crisis of the Canadian system.
- 2/ Federal moves to centrally co-ordinate economic policies (Scenario I) are significantly undermined by the severity of the continuing economic crisis. Political support is lacking, and a number of provinces launch major and effective legal and political resistance. In the course of the controversy, majority government in Ottawa changes to minority government.
- 3/ In the 1984 to 1985 period, federal and Quebec elections are held. An election, including a referendum, in Quebec yields a level of support for separatist forces that is interpreted as a mandate to negotiate political independence within the context of an economic common market.
- 4/ In the federal election, a substantial Quebec representation of nationalists committed to support independence, with or without economic association, is elected. Parliament is split among five political parties, and there is a scattering of independent MPs. There is a major and unprecedented crisis associated with the formation of a government; finally a formal coalition takes office.
- 5/ No clear strategy emerges for dealing with the Quebec independence issue, either in Parliament, or as a result of meetings with, and among, provincial governments. Finally, after a year or more of informal meetings sponsored by various citizens' coalitions, formal negotiations begin. These drag on until 1988, with no result. Quebec declares independence unilaterally, and after a referendum across Canada, independence is recognized.

### 3.3.2/ Truncated Canada (1990s/ Early 2000s)

Quebec maintains its independence throughout this period. The three Maritime provinces federate; while they and Newfoundland remain nominally within a truncated Canada, their economic relations with the U.S. are more significant, resembling an "economic commonwealth" in gestation (modelled, perhaps, on Puerto Rico, but with significantly more political independence). The U.S. underwrites economic development in Atlantic Canada and negotiates a free-trade zone, in return for revival of earlier naval and airbase arrangements and priority treatment regarding offshore oil.

Ontario and the Western Provinces negotiate a revised, truncated, confederal Canada. Ontario is divided into new provinces:

- the Lakehead area and Manitoba,
- a Toronto "city-province,"
- south-western Ontario, and
- eastern and northern Ontario.

The major national institutions are a regionally-representative Senate and a Council of Premiers. Within this arrangement, the political balance is roughly equal between the Western provinces and the Central (ex-Ontario) provinces. In general, the new arrangements reflect a maximization of the economic and political power of Western Canada.

Economically, the truncation of Canada coincides with a deepening international political and resource crisis. Higher international prices for oil from the Organization of Petroleum Exporting Countries (OPEC), and shortages of strategic resources, favour buildup of energy and resource trade, but exacerbate the undercurrent of de-industrialization.

### 3.3.3/ Year 2000 Situation

Increasing free trade with the U.S., economic dependency of the Atlantic region (offset by oil and gas shipments), and energy and materials linkages create an environment favourable to consideration of a North American Union by the late 1990s. Economics is dominant in decision-making; there is little residual strength for Canadian nationalist sentiment.

Throughout the 1990s, a task force on North American Union, privately funded and consisting of representatives of the various states and regions, meets to explore institutional frameworks and outstanding issues. In December, 1997, the Book of the Month Club distributes the task force report A North American Nation.

### 3.4/ Ontario Impacts

- 1/ Economically, extreme decentralization is an adverse scenario for Ontario. Insofar as a defined, protected, and promoted pan-Canadian market is unlikely in this institutional framework, such a scenario would strengthen de-industrialization trends. At the same time, Ontario would not achieve compensating benefits through the wider economic links that would be likely in a North American scenario.
- 2/ For Ontario, this is a reactive theme: it is unlikely to be widely supported, but would be accepted as a way-station, or for want of other alternatives.
- 3/ Coherence of regions within Ontario is likely to be impaired under such a scenario.
- 4/ Throughout the period of this scenario, viability of governmental institutions would decay. While socio-economic decentralization (personal and small-group self-reliance) remains largely independent of macro-institutional trends (i.e., social decentralization could continue to develop even under the nation-building scenario), it is likely that many more citizens would be disaffected from government during a period of decay and that there would be much greater growth of both a "hidden economy" and of alternate institutions at the micro-level (urban communes, barter-based business conglomerates), reflecting a sense of isolation from, and opposition to, formal political structures. Under a weakening system of political controls, the possibility of urban terrorism and inter-group violence would also be increased.

#### 4/ SCENARIO III: NORTH AMERICAN INSTITUTIONALIZATION -- AN ENVELOPE TREND

##### 4.1/ Scenario Descriptor

"North American Institutionalization" is an envelope trend with many potential forms and degrees of institutional linkage. At the present time, an increased level of international economic and military/diplomatic confrontation, combined with the increased networking of economic, social, and cultural relationships within North America, provides a basis for further development of North American ties. In general, some form of increased and more overt North American institutional linkage is likely to emerge in the period 1982 to 2000. When considering the preceding scenarios, but in a context of North American needs and linkages, two major variations on the North American scenario can be identified.

- 1/ Scenario III-1 supposes pursuit of an evolving North American system, within which Canada is able to negotiate acceptable institutional arrangements affecting major economic sectors, and longer-term (post-2000) evolution from sectors to more comprehensive and formal North American integration.
- 2/ Scenario III-2 assumes piecemeal absorption by, or linkage to, the United States following a collapse of Canadian federalism and a shorter or longer period of transitional "Balkanization."

##### 4.2/ Scenario III-1: From Nation-Building to North American Institution-Building

In this scenario, in the period through the mid-1990s there is an increasing level of North American institutionalization of a functional and sectoral type, evolving from the current status quo, and based on viable and distinct nation-states. Toward the end of the period, a longer-range process (carrying beyond 2000) begins to be discernible, involving the development of a North American "common market," or even an economic-political federation. This development can be linked to the previous Scenario I ("Evolutionary Nation-Building"): relative success in national economic and political integration, and in institutional reprofiling,

Canada with bargaining strength, so that North American institutions (with the U.S. and, possibly, including Mexico) emerge as a result of a series of negotiations based on recognition that political stability and socio-economic needs, together with technological change on a very large scale, require capacities to make and implement decisions that go beyond the individual nation-state.

For the U.S., additional concerns are energy security and a military/-diplomatic trend towards a North American or "hemispheric" orientation. The North American common market issue, first seriously raised at the political level in 1978/1980, is revived in the late 1980s. Greater recognition of sub-regional linkages (e.g., the Great Lakes economy and its fate as its older industries decay, and the networking of high-technology locales, and of energy relationships) provides an additional element of transnational "glue."

For Canada, relative success in confirming nation-state evolution along the lines of Scenario I, and in beginning to approach re-industrialization as an aspect of economic revival, raises a variety of transnational North American issues:

- central bank relationships, and the transnational direction of the monetary and financial system;
- cross-border regional requirements (e.g., Great Lakes industrial area);
- consequences of change in the mix of industries, e.g., questions of industry rationalization, trade access, and linkage of major technical systems (e.g., advanced communications networks); and
- mobility and compatibility of labour force, and availability of skills and know-how.

Initially, negotiations and new institutions are confined to specific sectors and to functional questions. But by the late 1990s, sectoral co-ordination (coupled with advances in communications and in decision-technology networking) is becoming quite dense. Complex multiple linkages

exist for economic planning and co-ordination, environmental control, major engineering projects, etc. Within this umbrella relationship, socio-cultural identity has increasingly devolved, within North America, in regions, states and provinces, and localities. While nation-states are still formally distinct (as in Europe in the 1970s), a controlled sectoral process has led to very substantial achievement of economic-/political institutionalization across borders (e.g., integrated monetary policies and a common currency). By the year 2000, there is substantial support for development of representative institutions and the gradual conversion of the North American common market into a fully-integrated North American Federation.

#### **4.3/ Scenario III-2: Extreme Decentralization, Leading to Canadian-U.S. Integration by Default**

As indicated in Scenario II, various degrees of breakdown of Canadian Federation, and of the unity of Canadian markets and the economy, are likely to lead to a piecemeal revival of the older continentalism, but in more overt form. The U.S., driven by economic interest and security concerns, would likely become a dominant actor in many parts of Canada by the beginning of the 1990s. A significantly Balkanized Canada is less able to exert influence on the nature and substance of cross-border bargaining and relationships.

A number of the elements of linkage to the U.S. under conditions of extreme decentralization in Canada are noted in Scenario II. As the transition develops from decentralization to North American integration, Quebec maintains its nation-state identity, but converts the "common-market" aspects of the older "sovereignty-association" approach into a trade, investment, and energy linkage to the U.S. The satellite relationship of most of Anglophone Canada to the U.S., from the end of the 1980s to the end of the 1990s, is accompanied by an increasingly vocal political movement in various parts of the truncated confederal Canada or statehood. Referenda on statehood with the U.S. are held in various parts of Canada after 1995. Shortly after the turn of the century, a Western Canadian province, backed by the results of three referenda over a period of years, and frustrated by deadlock over mineral revenue splits in international trade, declares independence and then gains admission to the United States. This sets in train a series of negotiations for statehood that are completed by 2015.

#### 4.4/ Ontario Impacts

Under any combination of circumstances, Ontario's economic viability requires market outreach. Maintenance of Canadian common-market unity (Scenario I) has been a key element in Ontario's approach to macro-institutional change in Canada. A re-industrialization approach would have to go beyond this, at some point, and would require addressing trade and economic concentration issues along North American lines. The question is how well this can be negotiated for specific economic advantage. Scenario III-1 would be to Ontario's long-term advantage (probably more directly and immediately than for other parts of Canada), and, thus, reinforces the sense that a "real world" variant on Scenario I merits Ontario's strong support over the critical next few years.

Conversely, extreme decentralization (Scenario II) is likely to be the worst-case scenario for Ontario. While maintenance of a truncated Canada would be a way-station, Ontario's real interest, and needs, in the event of collapse of Canadian confederation, would incline in the direction of a transition to a North American system. Accordingly, Ontario is likely to take a lead in advocating negotiated North American linkages at an early phase of a decline into extreme decentralization. Fissures within Canada, and general weakness of bargaining position, are likely to make this position practically untenable. In the course of developments sketched under Scenario III-2, Ontario, already weakened by extreme decentralization in Canada, would likely find it difficult to move toward U.S. linkage on terms that would be economically favourable.

5/ REFERENCES

- [1] Preston, Maurice, The Welfare State in Crisis, Organization for Economic Co-operation and Development, 1981.
- [2] Dror, Yehezkiel, The Welfare State in Crisis, Organization for Economic Co-operation and Development, 1981.

## Appendix A/ Teleconferencing Technology

The following description from the FY 1982 Program of the U.S. Defense Advanced Research Projects Agency (ARPA), which pioneered computer networks in the U.S., will be of interest in regard to "electronic federalism" (cf. Statement of Dr Robert R. Fossum to the Research and Development Subcommittee of the House Armed Services Committee, Washington, March 12, 1981, II, pp. 56-57):

"The objective of this program is to develop and demonstrate a low bandwidth video teleconferencing technology for crisis decision-making that requires no user training, provides for natural conference control (e.g., directed gaze, gestural addressing), incorporates meeting aids to facilitate group decision-making, and satisfies the unique requirements of those crisis situations in which each member of the decision-making group is at a different location. This objective is accomplished by the development of a novel video teleconferencing system that simulates, through the use of conferee surrogates to create a shared virtual space, a natural proximate conference in which all of the conferees would be gathered around a common meeting space through the development of a unique image coding algorithm that permits the transmission of video sketches at 9600 bits per second. The illusion of a proximate conference is further enhanced by providing each conferee with a shared graphical workspace or electronic blackboard that can be used to access many kinds of pictorial, graphic, and alphanumeric data, and which also permits the conferees to simultaneously and conjointly annotate visual materials, sketch, and prepare outlines and notes.

Group decision-making is an integral part of the command and control process. However, current command and control system design has not directly addressed the problem of how geographically dispersed decision-makers can be linked for effective group decision-making in times of crisis beyond providing a variety of communication means and data management systems. The advanced video Teleconferencing Technology program represents the first serious effort to address this problem, and the development of a technology for the low bandwidth transmission

of video provides a means that is both consistent with military operational constraints and economically responsible.

During FY 1980 to FY 1981, a five-station local video teleconferencing system was developed based on the shared virtual space concept. This system incorporates bandwidth compression and advanced media aids for multisource data retrieval, display, data sharing, joint document production, and meeting control. During FY 1982, the design of the local and distributed experimental conferencing system will be enhanced ... (most notably an improved high-resolution electronic "blackboard" and an innovative acoustic management system). Experiments will be conducted with the enhanced systems and a design will be developed for a prototype distributed U.S. Department of Defense (DoD) teleconferencing system during the out-years. In FY 1983, a DoD operational environment will be selected for installation of the prototype video teleconferencing system, and the system will be installed and evaluated in FY 1984."









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